

## **Base station, mobile unit and communication network**

### Abstract

A base station includes a transmission/reception device for communication with a  
5 mobile unit using one hopping sequence from a set of hopping sequences with a  
hopping sequence being a defined temporal sequence of transmission/reception  
frequencies and each hopping sequence differing from the other hopping sequences  
in the set. The base station also includes an identification device for the identification  
of the hopping sequence used for communication, so that the base station is always  
10 correlated with exactly one hopping sequence. A mobile unit allocated to that base  
station generates the hopping sequence used by the base station itself. Therefore by  
modification of the physical layer, but without modification to the higher protocol  
layers of DECT, an adaptation of applications designed for the DECT standard to the  
communication technology stipulated for the ISM bands can be achieved.